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Release Note for MicroRB-10035-MLP Lot No. 5021xxLOWx, EE50212xLO, 02115LOWAZ, 2114LOWCZZ

Parts Tested

- MicroRB-10035-MLP-TR
- MicroRB-10035-MLP-TR1

APPLICATION NOTE

LOT NUMBERS

| | | | | |
|------------|------------|------------|------------|------------|
| 02115LOWAZ | 502116LOWC | 502119LOWB | 502121LOWC | EE502120LO |
| 2114LOWCZZ | 502117LOWA | 502119LOWC | 502122LOWB | EE502123LO |
| 502113LOWB | 502117LOWC | 502120LOWA | 502122LOWC | |
| 502114LOWA | 502118LOWA | 502120LOWB | 502123LOWA | |
| 502114LOWB | 502118LOWB | 502121LOWA | 502123LOWB | |
| 502116LOWB | 502118LOWC | 502121LOWB | 502123LOWC | |

Test Summary

The following parameters are specific to the above-mentioned lots. All other performance parameters for this lot can be found in the product datasheet.

Table 1. LOT SPECIFIC PARAMETERS

| Parameter | Symbol | Condition | Min | Typ | Max | Unit |
|-------------------|--------|-----------|------|------|------|------|
| Breakdown voltage | Vbr21* | 21°C | 24.5 | 25.7 | 26.5 | V |
| Overvoltage | Vov | 21°C | | 10 | 15 | V |

*Vbr2 is defined as the value of the 0 intercept of a straight line fit to a plot of \sqrt{I} vs V, where I is measured dark current and V is applied reverse bias voltage and the part is in Geiger mode. (Measured on packaged parts.)

Temperature Dependence of Breakdown Voltage

The value of V_{br2}^{\dagger} as a function of temperature is plotted in Figure 1.

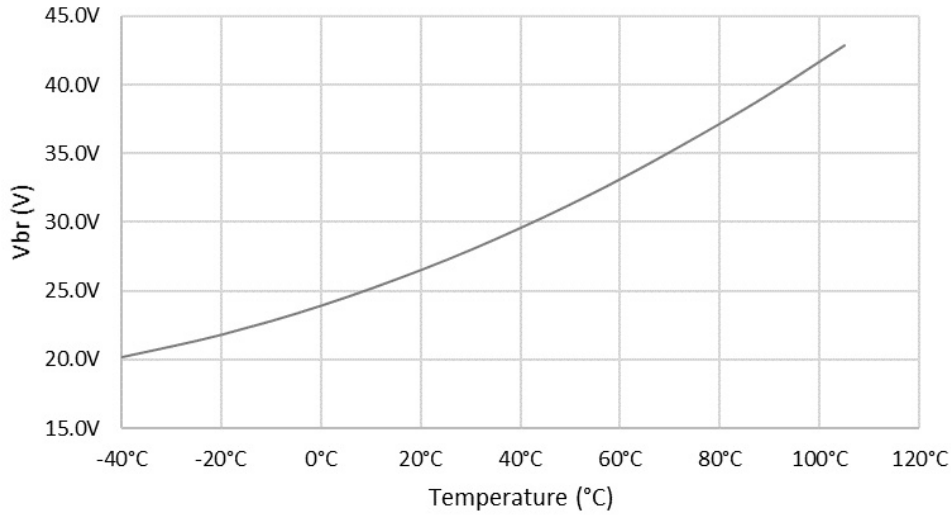


Figure 1. Temperature Dependence of Vbr2

Figure 1 can be approximated by the equation:

$$V_{br2} = a \times T^2 + b \times T + c \quad (\text{eq. 1})$$

where T = temperature in °C and fit parameters are given in Table 2.


Datasheet

The datasheet for this device is available at <https://www.onsemi.com/pub/Collateral/MICROB-SERIES-D.PDF>.

Table 2. FIT PARAMETERS FOR Vbr2(T)

| | |
|---|----------|
| a | 5.99E-04 |
| b | 1.18E-01 |
| c | 23.90 |

[†]V_{br2} is defined as the value of the 0 intercept of a straight line fit to a plot of \sqrt{I} vs V, where I is measured dark current and V is applied reverse bias voltage and the part is in Geiger mode. (Measured on packaged parts.)

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